

Case 3341***Cardium egmontianum* Shuttleworth, 1856 (currently *Trachycardium egmontianum*; Mollusca, Bivalvia): proposed conservation of usage**

Harry G. Lee

4132 Ortega Forest Drive, Jacksonville, FL 32210, U.S.A.
(e-mail: shells@hglee.com)

Richard E. Petit

806 St. Charles Road, North Myrtle Beach, SC 29582, U.S.A.
(e-mail: r.e.petit@att.net)

Abstract. The purpose of this application, under Article 74.1 of the Code, is to conserve the current usage of the name of the common and widespread western Atlantic bivalve mollusk *Trachycardium egmontianum* (Shuttleworth, 1856). The type series of *Cardium mindanense* Reeve, 1844 contains a specimen of *Trachycardium egmontianum*, which was figured by Reeve, as well as specimens of the Indo-Pacific species on which the name is based. In 1992 Voskuil & Onverwagt designated the western Atlantic specimen as 'holotype' of *Cardium mindanense*, thus making it a senior synonym of *C. egmontianum* and at the same time removing the name *C. mindanense* from usage for the Indo-Pacific species. It is proposed that that designation be declared invalid and that a later type designation by Vidal (1998) making one of the Indo-Pacific specimens the lectotype be declared the valid lectotype designation. This action would conserve prevailing usage of *C. egmontianum* and also make the name *C. mindanense* available for a Pacific species.

Keywords. Nomenclature; taxonomy; Mollusca; Bivalvia; CARDIIDAE; *Trachycardium*; *Cardium mindanense*; *Cardium egmontianum*; *Cardium rubicundum*.

1. Reeve (1844, pl. 4, fig. 19) described and figured *Cardium mindanense*, stated to be from Mindanao, Philippines. The type material, which is at the Natural History Museum, London, consists of three syntypes. One of them, the specimen figured by Reeve, is identifiable as *Cardium egmontianum* Shuttleworth, 1856. The other two specimens are the Philippine species illustrated as *Cardium mindanense* Reeve by Springsteen & Leobrera (1986, p. 306, pl. 87, fig. 2) and by Vidal (1998, figs. 18–20).

2. Voskuil & Onverwagt (1992) described as new an Indo-Pacific species, *Acrosterigma kengaluorum*. As a synonym of this new species they listed: '*Trachycardium* (*Vasticardium*) *mindanense* (Reeve, 1844)—Springsteen & Leobrera, 1986, p. 306, pl. 87, fig. 2. [not *Cardium mindanense* Reeve, 1844]'. Voskuil & Onverwagt placed *Cardium mindanense* as used by Springsteen & Leobrera in square brackets as they changed the concept of the species in their paper. In the discussion of their new species Voskuil & Onverwagt (1992, p. 38) state that the only identifiable illustration of the species can be found in Springsteen & Leobrera. They further state that the

illustrated 'holotype', with holotype within quotation marks, of *C. mindanense* is a specimen of the Caribbean species that was previously known only as *Cardium egmontianum* Shuttleworth (1856, pp. 172–173) and that *C. mindanense* has priority over the latter. The only other mention of 'type' in any form in connection with the nomina under discussion appears in the caption for fig. 3 in Voskuil & Onverwagt which is: *Trachycardium mindanense* (Reeve, 1844), right valve of illustrated holotype. Voskuil & Onverwagt make no mention of any syntypes, but they were probably aware of them as they gave the correct BM(NH) collection number and state in their acknowledgements that the 'collections of the BM(NH) were studied'. The wording of Article 74.5 makes the validity of Voskuil & Onverwagt's type designation questionable, but this application is based on its being valid in order to remove any question.

3. Vidal (1998) placed both *Cardium mindanense* Reeve, 1844 and *Acrosterigma kengaluorum* Voskuil & Onverwagt, 1992 in the synonymy of *Vasticardium rubicundum* (Reeve, 1844). Although not directly bearing on this application, it must be mentioned that *Cardium mindanense* (October, 1844) has priority over *C. rubicundum* (December, 1844). Vidal's statements about the type material for *C. mindanense* are repeated here in part:

'— one box with the specimen figured by Reeve, subsequently erroneously labelled [sic] 'holotype' [quotes in original]. Reg. No. 1978–124 ... This shell is *Trachycardium egmontianum* Shuttleworth, 1850, from the Atlantic Coast of North America. This shell was probably placed with the others by Cuming in error, because of a certain superficial resemblance between them. Further, it was probably chosen by Reeve for the figure because it was the largest'.

'— a second box with two specimens of *V. rubicundum* ... These last two shells are very probably those which came from Mindanao and from which the name mindanense [sic; not in italics] originates. In order to avoid possible confusion and to preserve the legitimate Indo-Pacific origin of this taxon, I have selected as lectotype of *Cardium mindanense* the largest of these ... ; the remaining syntype becomes the paralectotype'.

Vidal considered the holotype designation by Voskuil & Onverwagt to be invalid. The designation made by Vidal, who figured the lectotype he designated (1998, p. 115 figs. 18 & 19) as well as the paralectotype, complies with Article 74.5.

4. The action of Voskuil & Onverwagt (1992) was not in accord with the Principle of Priority or Recommendation 74A as their action displaced two names in current usage in order to make it possible to introduce a new name. Had they taken the same action as that of Vidal, no existing usage would have been disturbed.

5. *Trachycardium egmontianum* (Shuttleworth, 1992) is a common and well-known component of the bivalve fauna of the southeastern United States and the Caribbean. Its usage is so widespread that a considerable body of literature would be affected unless it is conserved. A search of the print literature has been made for usages of both names involved, with the following result: 78 references (69 in the past 50 years) citing *Trachycardium egmontianum* (Shuttleworth, 1856) as a western Atlantic taxon; 9 references (3 in the past 50 years) citing *Cardium mindanense* Reeve, 1844 (in various genera) as an Indo-West Pacific taxon; 1 reference (Voskuil & Onverwagt, 1992) treating *Trachycardium mindanense* as a western Atlantic taxon. This complete list of 88 references is held by the Commission Secretariat.

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all lectotype designations for *Cardium mindanense* Reeve, 1844 prior to that by Vidal (1998);
- (2) to place the following names on the Official List of Specific Names in Zoology:
 - (a) *mindanense* Reeve, 1844, as published in the binomen *Cardium mindanense* and as defined by the lectotype designated by Vidal (1998);
 - (b) *egmontianum* Shuttleworth, 1856, as published in the binomen *Cardium egmontianum*.

Acknowledgements

We thank Mr Jacques Vidal (*Museum National d'Histoire Naturelle, Paris*) for communicating with us on an early draft concerning this subject. We also thank Dr Rüdiger Bieler (*Field Museum, Chicago*) and Dr Gary Rosenberg (*Academy of Natural Sciences of Philadelphia, Philadelphia*) for discussions on this subject.

References

- Reeve, L. 1844–1845. Monograph of the genus *Cardium*. *Conchologia Iconica*, 2: [unpaginated text], pls. 1–22 (pl. 4, October, 1844; pl. 9, December, 1844).
- Shuttleworth, R.J. 1856. Description de nouvelles espèces. Première décade; espèces nouvelles pour la faune des Antilles. *Journal de Conchyliologie*, 5: 168–175.
- Springsteen, F.J. & Leobrera, F.M. 1986. *Shells of the Philippines*. 377 pp. Carfel Seashell Museum, Manila.
- Vidal, J. 1998. Taxonomic revision of the Indo-Pacific *Vasticardium assimile* species group (Mollusca, Cardiidae). *Apex*, 13: 111–125.
- Voskuil, R.P.A. & Onverwagt, W.J.H. 1992. Studies on Cardiidae. 6. Two new species from the central Indo-Pacific and southeast Greenland and new names for two primary homonyms (Mollusca, Bivalvia). *Gloria Maris*, 31: 33–44.

Acknowledgement of receipt of this publication was published in BZN 62: 57.

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).